470

MR. CLARENCE W. MOSHER,
PORT HURON,
MICH.
209 HURON AVE.

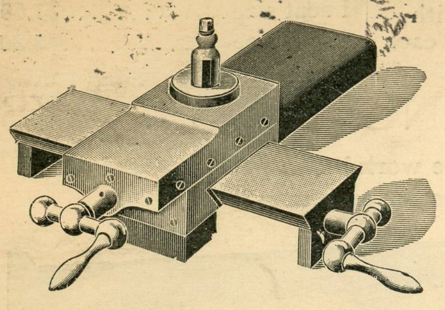
REGISTER
OR
INSURE
VALUABLE MAIL

VARICK ST. STA. N.Y. 2
1927

LEIMAN BROS.
COMPLETE SHOP OUTFITTERS

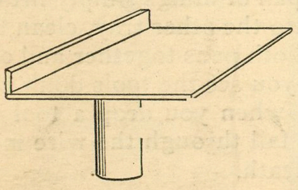
NEW YORK, N. Y.
23 Walker Street
Phone, Canal 9715

Makers of Good Machinery for 35 Years



SLIDE REST

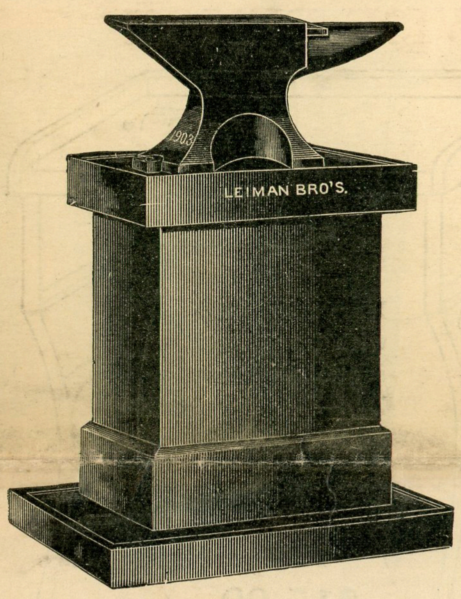
Price $20.00



PLAIN SAW TABLE

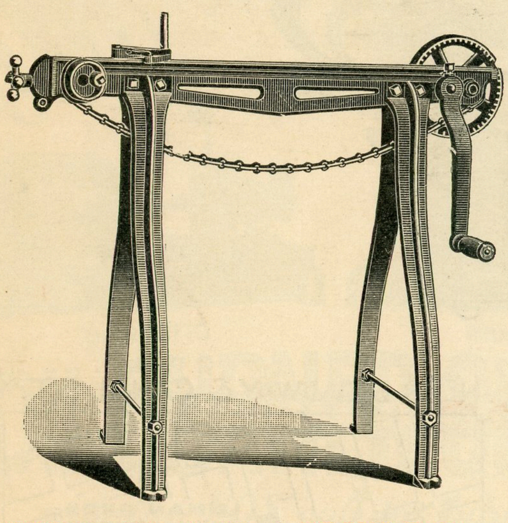
Size 3x3 in.

Price $3.50


LEIMAN BRO'S.

ANVIL AND SHOCK-ABSORBING ANVIL BLOCK

50 lb. anvil and block	$24.50
3 lb. hammer	1.75
5 lb. hammer	2.00



WIRE DRAWING MACHINE

4 feet long

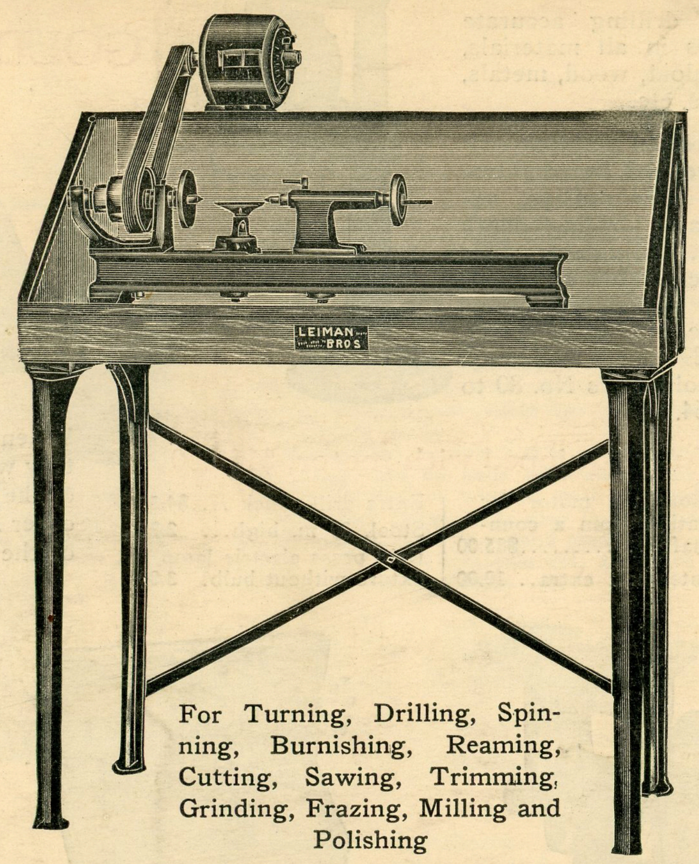
With tongs for pulling the wire and vise for holding draw plates.

Floor space 25x45 in.

Weight 105 lbs.

Price $35.00

BENCH SPEED LATHE



For Turning, Drilling, Spinning, Burnishing, Reaming, Cutting, Sawing, Trimming, Grinding, Frazing, Milling and Polishing

A speed lathe is a very handy machine to have, and every shop, tool room, experimental shop, manual training school, home workshop or wherever mechanical work of any kind is done, should not be without one.

The general construction of these lathes embodies strength and rigidity, and the accuracy maintained in the process of manufacture makes it a high class machine, suitable for heavy duty as well as for accurate or delicate work. The head and tailstock are well proportioned and these as well as the centers are in perfect alignment. The headstock spindle is made of a high grade spindle steel, accurately turned, ground and fitted and has a ½-in. hole through entire length so that long bars or rods can be passed through when necessary and the bearings, which are of the split type, are each furnished with self-closing oilers, and the machines are nicely finished. The three-step cone pulley which takes 1¼-in. wide belt is accurately balanced by turning, both in and outside. Loose and tight pulleys are furnished when desired, and so ordered.

Each lathe is equipped with either cone or tight and loose pulleys, face plate, small and large T rests and wrench.

8 in. swing 20 in. between centers

Bed 3 ft. long, ½ in. hole in spindle

Price, lathe only	$ 75.00
Mounted on bench with motor as shown	160.00
Bench lined with zinc, floor space 24x48 in., 35 in. high to bench. Bench only	40.00
3 jaw chuck, 3 in. diameter, with arbor fitted	25.00
No. 2 drill chuck, 21/64 in. with arbor, fitted	10.50
Saw arbor, fitted	7.50
Taper polishing arbor, fitted	5.00

WASH BASINS

for gold saving purposes

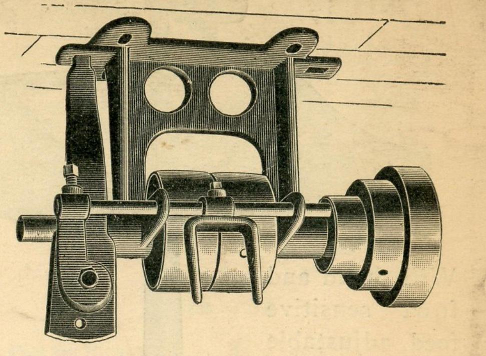
One barrel size, 24x24 ins.	$12.00
Two barrel size, 24x62 ins.	18.00

Bottom drip pans to protect the floor

One barrel size, 24x26 in.	5.25
Two barrel size, 26x56 in.	7.90

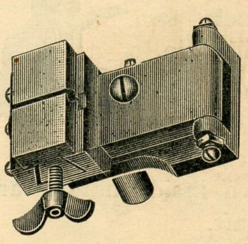
No piping connections supplied.

Barrels, hardwood, each	7.00



COUNTERSHAFT

Price $15.00



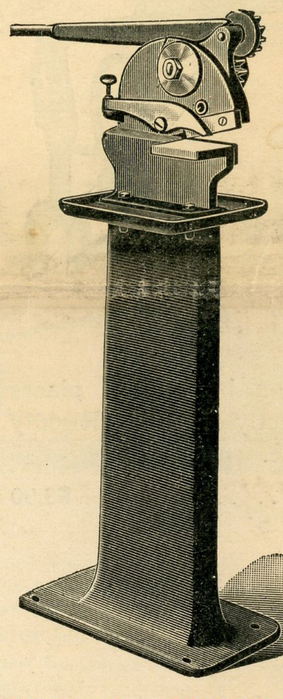
ADJUSTABLE SAW TABLE

for chain links, tubing, etc.

Jaws 1⅜ in. long

Opens 1¼ in.

Price $15.00



METAL CUTTING SHEAR

With geared jaws for easy cutting

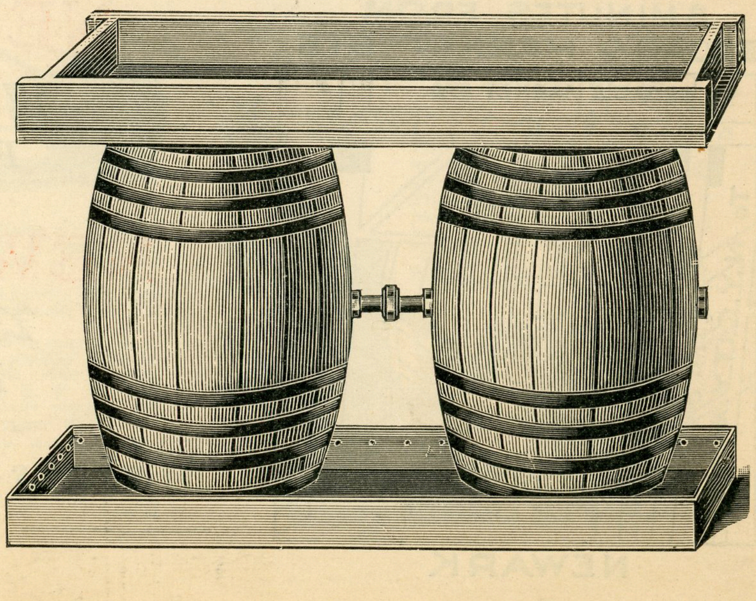
Cuts flat stock ¼ in. thick

Cuts rods ⅜ in. diameter

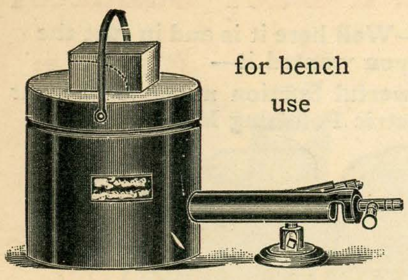
Blades 4 in. long

Weight 114 lbs.

Price $45.00

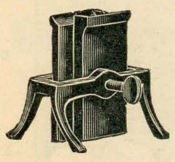


NO. 41 GAS FURNACE



for bench use

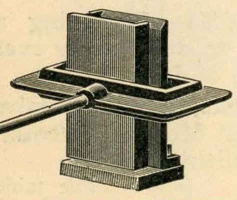
Holds No. 1 Crucible
Melts about 2 lbs.
Gas consumption 10 cu. ft. hour
Price $9.00
Size B blower and 1/3 H. P. motor to operate furnace—
$94.00 extra



NO. 1 INGOT MOULD

For Flat Stock

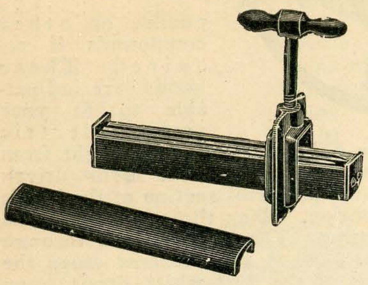
1⅞x4x¼ in.
1⅞x4x3/16 in.
Wt., 5 lbs.
$4.00



NO. 2 INGOT MOULD

PLATE $8.00

12 lbs.
3x6x5/16 in.
3x6x⅜ in.
3x6x½ in.



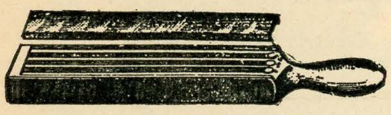
NO. 3 INGOT MOULD

For Plate and Square Wire

3 square grooves, ¼, 5/16, ⅜ in. $7.00

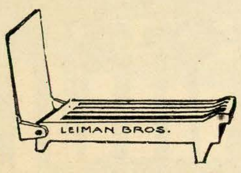
3 grooves as above, also ¼x1x 11 in. flat $10.00

Weight, 10 lbs.



NO. 3B INGOT MOULD

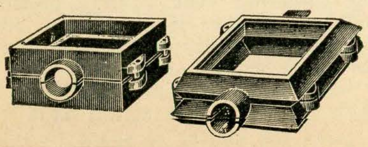
3 square grooves, ¼, 5/16, ⅜ in. 11 inches long.......$6.00


LEIMAN BROS.

NO. 5 INGOT MOULD

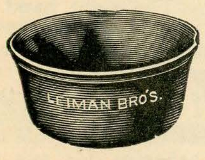
$8.00

3 square grooves 5¼x¼x5/16 or ⅜ in. Plate, 5¼x¼x1 in.
Weight, 8 lbs.



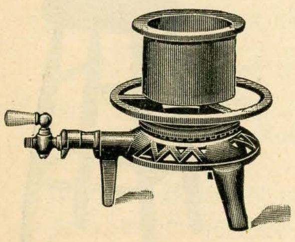
JEWELERS' CASTING FLASKS

No. 1—2x2¾ in. straight sides	**$4.00 Each**
No. 2—2½x2¾ in., V straight sides	
No. 3—4x5 in., V sides	
No. 4—4x6 in., V sides.	
No. 5—2½x3¼ in., straight sides	
No. 6—3½x4½ in., straight sides	
No. 7—4½x5 in., straight sides	
No. 8—4x6 in., straight sides	


LEIMAN BRO'S.

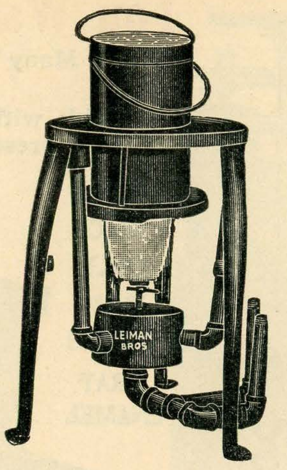
ACID PICKLE POT

Made in one piece sheet lead ¼ in. thick
6 in. diameter, 5 in. high
8 in. diameter, 5⅜ in. high
$10.00 each



CAST LEAD PICKLE POT

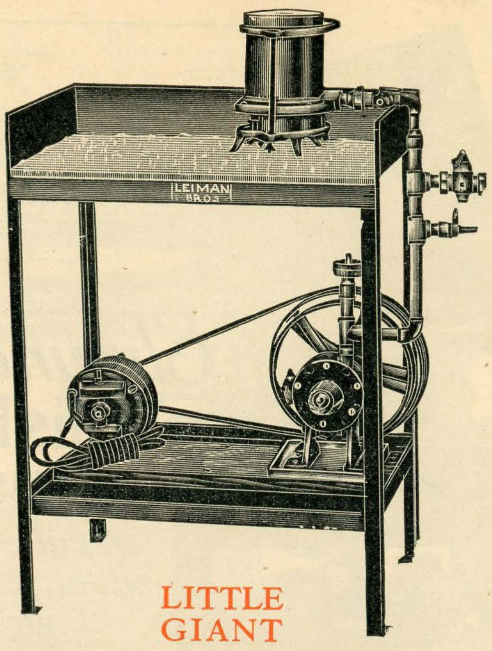
3 in. diameter, 2½ in. deep with gas stove for hose or pipe connection $4.50



No. 2A GAS FURNACE

For melting Gold, Silver, Brass, Copper, etc.

Holds crucible 6 in. high
Melts 15 lbs. in 20 min.
Gas consumption 50 cu. ft. hour
Floor space 17x17 ins.
Weight 65 lbs.
Price $55.00
Size C blower and ½ H. P. motor to operate furnace
$121 extra

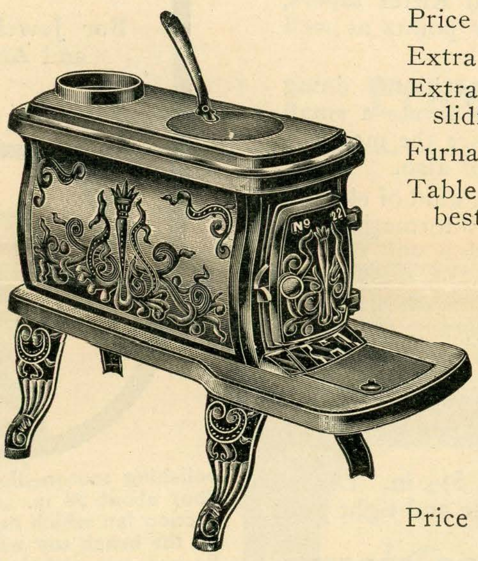


LITTLE GIANT MELTING OUTFIT

Iron table covered with ½ inch thick asbestos, with B blower and 1/3 H.P. motor, 2 speed pulley, piped for furnace and blow pipe.

Holds crucible 4 in. high
Melts 30 oz. in 30 min.
Gas consumption 25 cu. ft. hour
Floor space 20x27½ ins.
Height of table 30 ins.
Weight 175 lbs.

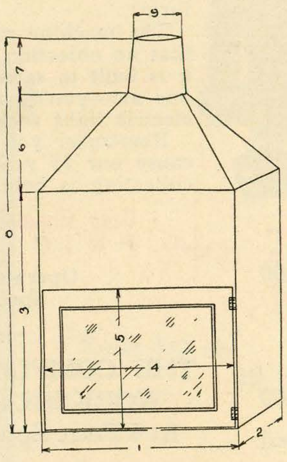
Price $131.00
Extra for smoke hood $11.50
Extra for smoke hood with upsliding door $19.00
Furnace alone $12.00
Table only with ½ in. thick asbestos top $11.50



SWEEP REDUCING STOVE

No gas or air required
Uses flue with very weak draft.
Handles a shovelful at a time.
Floor space 20x30 ins.

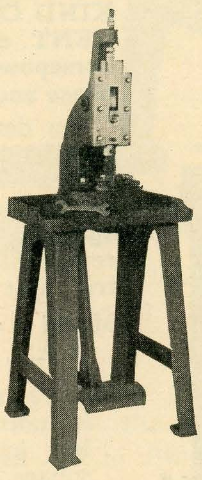
Price $15.00



ACID REFINING HOOD

of galvanized sheet iron with plate glass door.

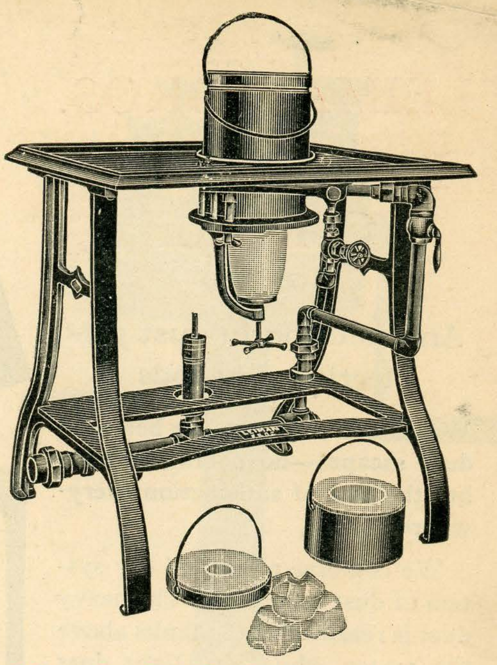
12x18 inches
38½ ins. high over all
14½x17½ in. door
Weight 16 lbs.
Price $11.50



FOOT PRESSES

For cutting, stamping and forming on all sorts of small metal and celluloid work.

No. 1—Cuts blanks only—thickness and size of a dime............$75.00
No. 1½—Cuts blanks only—thickness and size of a nickel $85.00
No. 2—Cuts blanks only—thickness and size of a quarter $95.00
No. 7—Cuts blanks, stamps and forms thickness and size of a half dollar—a most accurate press, preventing shearing of good tools $275.00

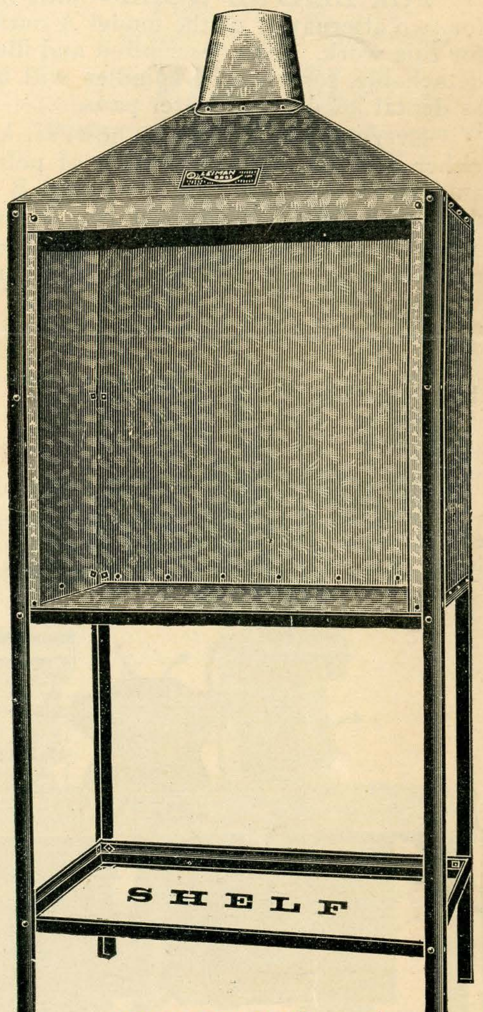


No. 2 GAS FURNACE

For melting Gold, Silver, Brass, Copper, etc.

Holds crucible 6 in. high.
Melts 15 lbs. in 30 min.
Gas consumption 70 cu. ft. hour.
Floor space 24x29 in.
Weight 180 lbs.

Price $70.00
Size C blower and ½ H. P. motor to operate furnace ....$121.00 extra.

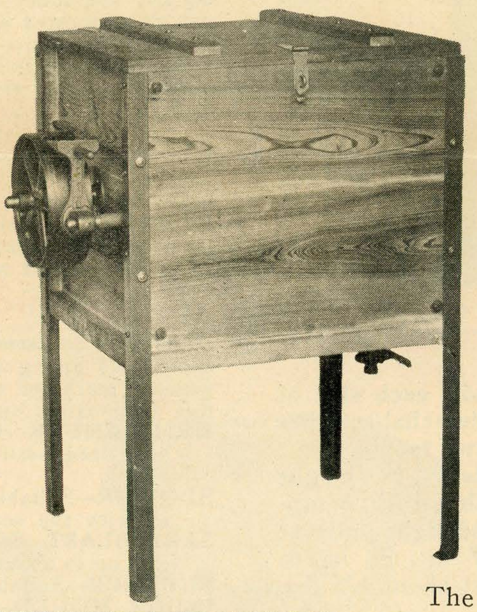


SOLDERING and GAS FURNACE SMOKE HOOD and STAND

With ½ in. thick asbestos on table

Floor space 20x27½ ins.
Height to table 30 ins.
Height over all 73 ins.
Weight 45 lbs.

Price $23.00
Price with upsliding door 30.50
Table only with ½ in. thick asbestos on top 11.50
½ in. thick asbestos, only 1.50



TUBBING MACHINE

The tubbing process is one that makes quite a saving in labor costs. Strictly speaking this process involves burnishing of metal parts, whether it be jewelry, optical goods, hardware, gold pens, collar buttons or what not. It is meant to do the work in quantities automatically where a very high lustre such as is produced by buffing on a machine cannot be considered.

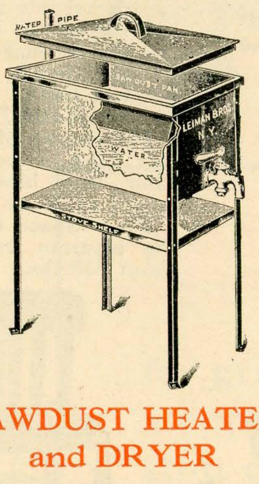
The machine is a heavily built wooden tank inside of which is suspended on suitable bearings a hexagon shaped tank which revolves and into which the work is placed together with the proper sized and shaped steel spickets, balls, and soap. The inner tank revolves partly submerged in the water. A dozen, a gross, a thousand or more articles of any shape or size may be placed in this inner tank without danger of denting, bending or otherwise spoiling them.

We are glad to advise on this class of work if desired and can furnish the machine alone with loose and tight pulleys for operating from a main shaft or with electric motor attached complete.

Floor space 23x32 inches
Height over all 41 inches
Inner tank 11½x12 inches

Price $75.00

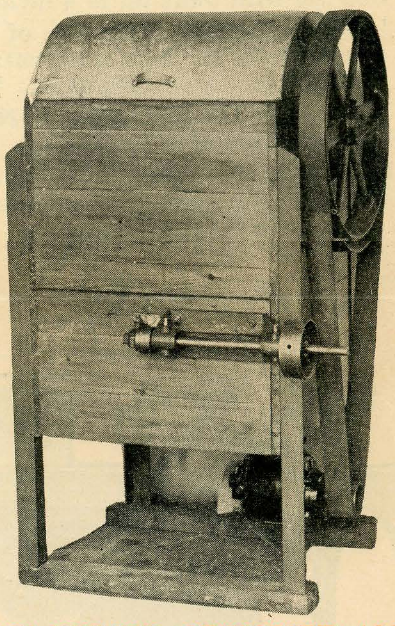
With motor and all connections between motor and tubbing machine—
Price $150.00



SAWDUST HEATER and DRYER

Made of copper with brass faucet and rear water service connection. Gas stove required for heating.

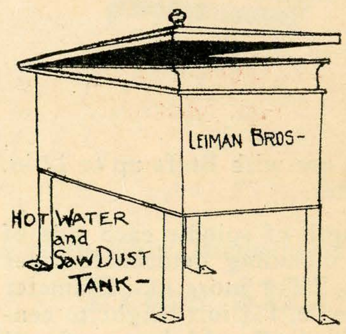
Floor space 12x19 ins.
Body 12 ins. deep.
Sawdust pan 4 in. deep.
Height over all 41 ins.
Price $35.00



COMBINED CRUSHER AND SIFTER MACHINE

Equipped with ¼ H. P. back-geared motor

Capacity of crusher 1 peck
Size of hexagon crusher body 13x18 ins.
With tumbling crusher weights.
With alternately operating belt for crusher and sifter.
Floor space 30x34 ins.
Price $265.00



SMALL SAWDUST HEATER and DRYER

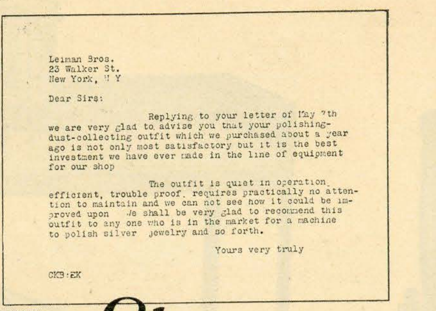
Made of copper with brass faucet.
Size 8½x12 ins., 6 ins. deep.
Sawdust pan 3 ins. deep.
Price $15.00
Gas stove required for heating.

LEIMAN BROS.

Polishing Dust Collector

PATENTED

An evolution in dust collecting methods



Leiman Bros.
23 Walker St.
New York, N Y

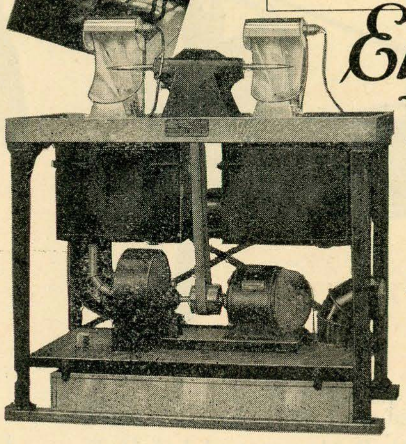
Dear Sirs:

Replying to your letter of May 7th we are very glad to advise you that your polishing-dust-collecting outfit which we purchased about a year ago is not only most satisfactory but it is the best investment we have ever made in the line of equipment for our shop

The outfit is quiet in operation, efficient, trouble proof, requires practically no attention to maintain and we can not see how it could be improved upon We shall be very glad to recommend this outfit to any one who is in the market for a machine to polish silver jewelry and so forth.

Yours very truly

CKB:EK



Eliminates **Polishing Dust** *in polishing silver, jewelry, etc.*

Wet and dry system, the best—no dust escapes—no odors—nothing but the best of satisfaction everywhere.

We combine a wet and dry system of dust separation. The heavy dust is retained in the tanks above the motor while any light dust which might perchance escape from these, is surely caught and held in the water bath in the lower tank.

Being an evolution in dust collecting methods the outfits have been steadily improved—noiselessness being a prominent feature of their operation.

It will be noted from the illustrations that an outfit can be secured for any class of work. They are meant for dental work or work of a similar nature, including jewelry and novelties. The machines are supplied with spindles of varying lengths. This makes them adaptable for both small or large pieces which may be buffed or polished with wheels not exceeding the sizes mentioned under each illustration.

FOR DENTAL WORK—Both the model B outfit for one operator continuously, for two alternately or the model A outfit for two operators continuously may be used for this work. (See description and illustrations.) Specify this work and Ritter tapers, detachable, for ends of spindles will be supplied instead of regular taper points as well as dental hoods with water pans.

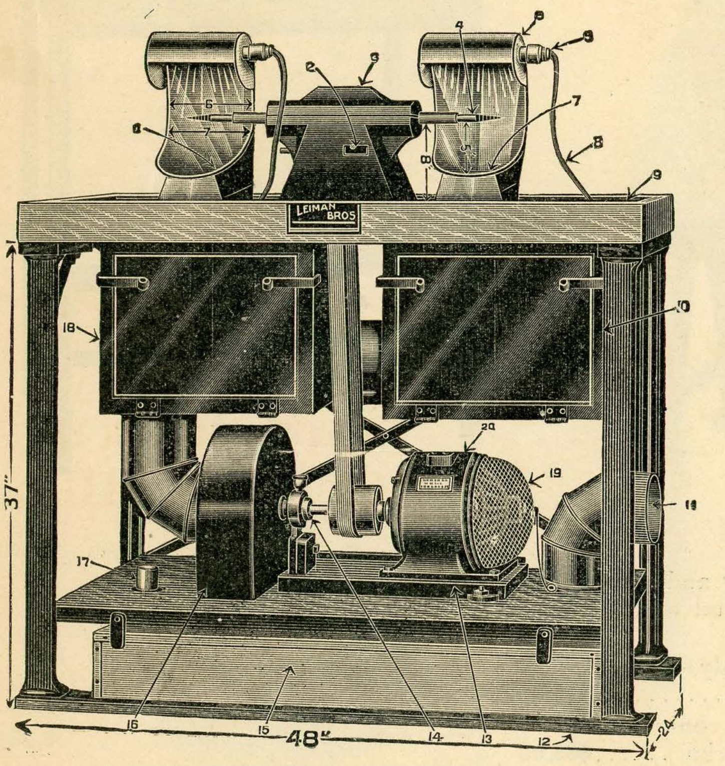
Every dental laboratory however large or small, as well as every practitioner doing either a small or large amount of polishing, has use for an outfit of this kind—a small amount of work calls for the model B outfit, while busy laboratories require the model A outfit—or better still model No. 38 outfit—having a ½ horsepower motor also.

Whichever outfit you decide to order be sure not only to mention the kind of electric current to be used with reference to the voltage, cycles and phase (which information can easily be secured of your local electric company) but also mention that you will do wet and dry polishing and pumice work and you will get the machine with suitable dust hoods with removable water pans as well as detachable Ritter taper arbors for holding Ritter attachments (if on the other hand you desire our regular threaded and detachable taper arbors instead please mention this).

Model A is Shown Below—1-2 Hp. Motor

For us with buffs up to 8 inches diameter.

Lengths of spindle, each side of head including detachable taper point 5½ in. Diameter of spindle ⅞ in.; height to centre of spindle 8 in.; equipped with loose and tight pulleys. Floor space about 24x48 in., weight about 440 lbs.



BE SURE TO SPECIFY KIND OF ELECTRIC CURRENT available for one-half horsepower with the voltage, phase and cycles.

For dental work we supply detachable tapers instead of buff arbors so that Ritter attachments may be used when specified. Also zinc hoods with removable water pans and electric light attachment.

Model A as shown, D.C. or A.C. $225.00

With spindle 9 in. long including point on left hand side with square flat hood. $230.00

Where More Power is Desired

With 1 H. P. motor instead of ½ H. P. $250.00

With 1 H. P. motor with spindle 9 in. long left side including with square flat hood $255.00

Model B—1-3 Hp. Motor—is same as model A but smaller, having both suction hoods connected to one cabinet under the bench.

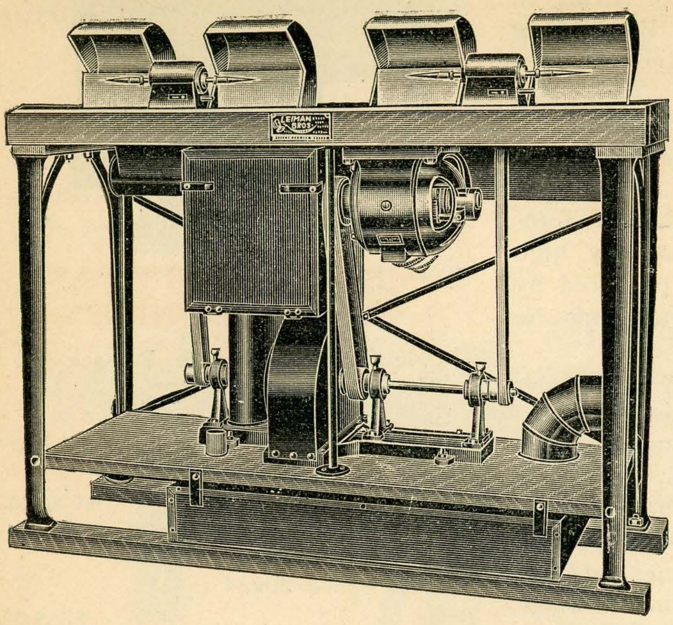
For use with buffs up to 4 inches diameter.

Length of spindle, each side of head including detachable taper points 4¼ in. Diameter of spindle ¾ in.; height to centre of spindle 7 in.; equipped with loose and tight pulleys. Floor space about 20x40 in. Weight about 325 lbs.

BE SURE TO SPECIFY KIND OF ELECTRIC CURRENT available for one-third horsepower, with the voltage, phase and cycles.

For dental work we supply detachable tapers instead of buff arbors so that Ritter dental attachments may be used when specified. Also zinc hoods with removable water pans and electric light attachments.

Model B as shown—D.C. or A.C.	$180.00
Has spindle 8 in. long including point on left hand side with square flat hood. . . .	$185.00



Model 38

½ Hp. Motor

Length of spindle each side of head, including detachable taper point, or with Ritter tapers, 5 in.; diameter of spindles ½ in.; height to centre of spindles, 4 in.; equipped with loose and tight pulleys; floor space 19x57 in.; 38 in. to bench top. Weight about 425 lbs.

BE SURE TO SPECIFY KIND OF ELECTRIC CURRENT available for one-half horsepower with voltage, phase and cycles.

Price $335.00

Model 16

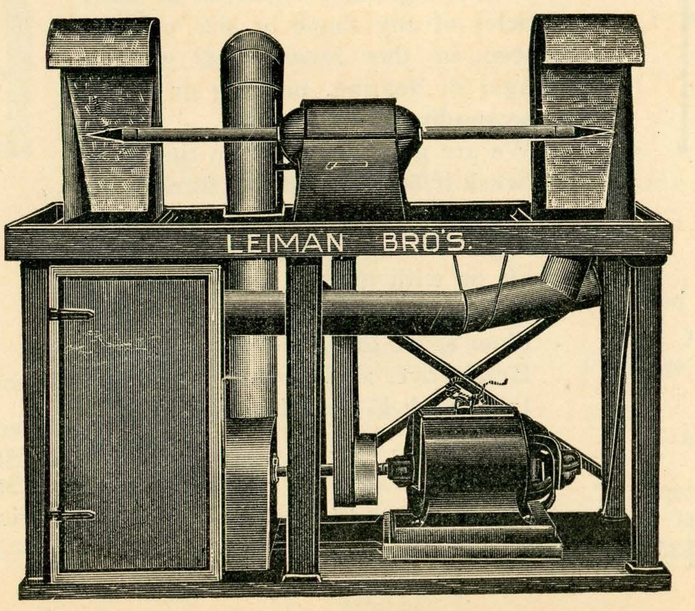
2 Hp. Motor

For use with Buffs up to 12 in. diameter.

Length of spindle each side of head, including detachable taper points, 11 or more in. Diameter of spindle, 1¼ in.; height to centre of spindle, 12 in.; equipped with loose and tight pulleys. Floor space 2½x5 feet—weight about 500 lbs.

BE SURE TO SPECIFY KIND OF CURRENT available for two horsepower, with the voltage, phase and cycles.

Price $352.00


LEIMAN BRO'S.

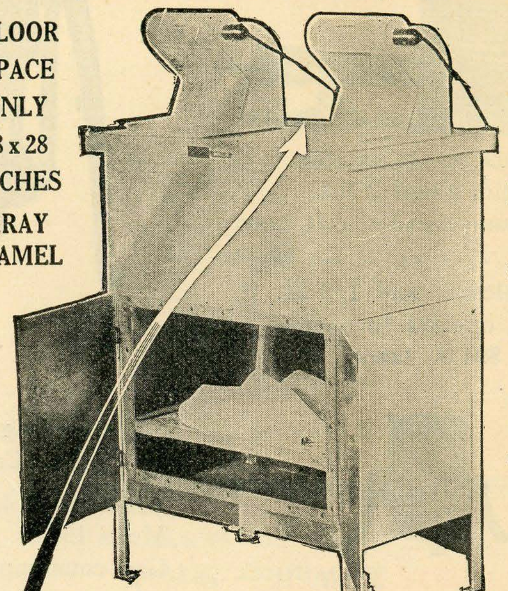
You Wanted a Dust Collector

These Many Years—Well here it is and in just the form you wanted it—

A Table with a powerful Suction made to fit your present Electric Polishing Motor

FLOOR SPACE ONLY 18 x 28 INCHES

GRAY ENAMEL



PRICE until further notice is **$125** F. O. B. our factory

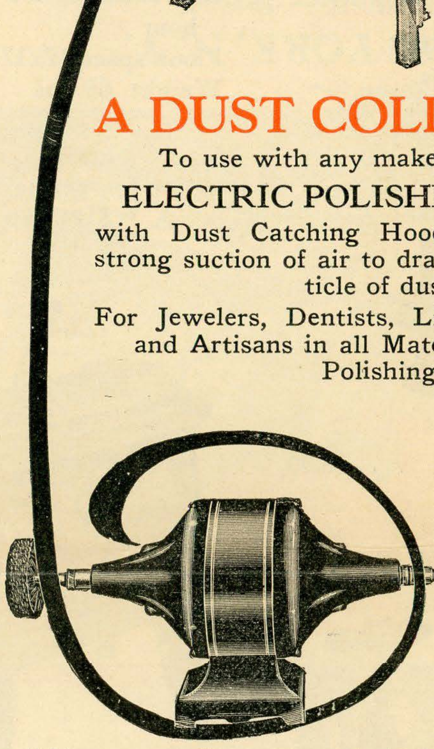
A DUST COLLECTOR

To use with any make, size or style

ELECTRIC POLISHING MOTOR

with Dust Catching Hoods having a very strong suction of air to draw away every particle of dust.

For Jewelers, Dentists, Light Metalworkers and Artisans in all Materials Requiring Polishing.



The table top is covered with zinc in a form easily kept clean and sparkling. The two suction hoods with the electric light sockets have little removable water pans to be used for holding water and pumice or other compounds if required. These hoods are adjustable to fit your present electric polishing motor—floor space only 18x28 in. and height from floor about 38 in. Inside, out of sight, is the motor driven suction fan which maintains the powerful suction at the hoods on the bench top while in motion. Then there is a fine mesh linen bag which is self-cleaning. The air is drawn through this bag leaving the dust and when the machine stops the bag immediately purges itself of the dust which drops down into a specially designed receptable having a small quantity of water to entrap and hold the dust in easily recoverable form.

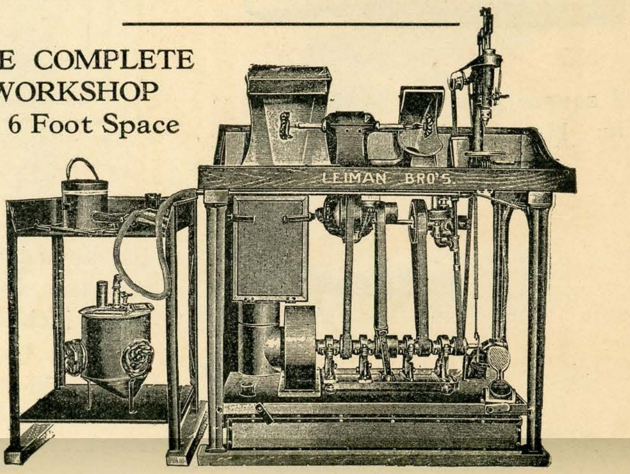
The machine runs very smoothly and practically silent so that no objection to its operation can be found by anyone—it is built to satisfy and it does. It makes dust collecting a fine art—you'd say so if you saw it running off your own electric light socket.

Remember you take no chances in buying this outfit because our 35 years' experience as experts in polishing dust collecting is behind it.

Gray Enamel PRICE $125.00 FLOOR SPACE 18 x 28 INCHES

Operates From Electric Light Socket.
Specify Volts, Cycles and Phase.

THE COMPLETE WORKSHOP in 6 Foot Space


LEIMAN BRO'S.

This complete workshop, as will be noted by referring to the illustration, is made up especially for the use of manufacturers, repairers and retailers. Each operation such as drilling, melting, annealing, oxidizing, soldering, sand blasting, polishing and dust collecting as well as a number of other operations can be performed with this outfit as rapidly and efficiently as the most expensive machine you ever saw.

Almost every storekeeper has felt the need at some time or other of a small shop suitable for doing almost any kind of work, but in a great many cases the matter of space forbids the installation of the necessary machines. Then again there are a great many small repairers—not to say manufacturers—who, while finding it mandatory to do their work are hampered by the expensive rental of the necessary space; "THE COMPLETE WORKSHOP" has been designed for the sole purpose of obviating these difficulties, and making it possible to do all sorts of work within the most limited space.

Only One Operation at a Time

In order to secure the same service that this machine is capable of giving it would be necessary to purchase independent machines which would cost a great deal more than this combination outfit costs.

DRILL-CHUCK—for drills 0 to 5/16 in.; foot and hand lever feed, vertical movement 1½ in.; face plate to chuck, 5½ in.

BLOWER—Suitable for use with the furnace or sand blast; or with the soldering plowpipe.

SAND BLAST—Suitable for sand blasting all pieces of jewelry up to about 3½ in. in diameter.

FURNACE—Suitable for melting about 2 lb. of metal.

INGOT MOULD—For flat stock 1⅞x4x¼ in. or 3/16 in. as desired.

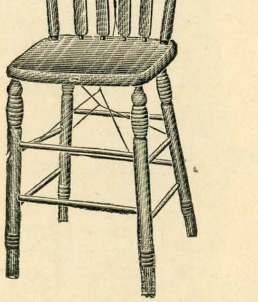
POLISHING—Length of spindle, each side of head including detachable taper points 5½ in. The right hand side of the spindle is supplied with an extra taper so that it may be shortened to 3½ in. including the point for use in watch-case polishing and other similar work requiring end buffs. Diameter of spindle ¾ in.; height to centre of spindle 7 inches.

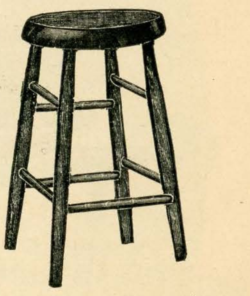
We also supply the necessary piece of rubber tubing. One pair 12-in. Crucible tongs, sheet asbestos for top of iron table, hand blowpipe and box of sand for sand blast with outfits as above mentioned.

Floor Space Complete about 22x72 inches which includes the separate iron table, furnace and sand blast. Weight about 530 lbs.

Price $340.00

Be sure to state volts, cycles and phase of electric light current.



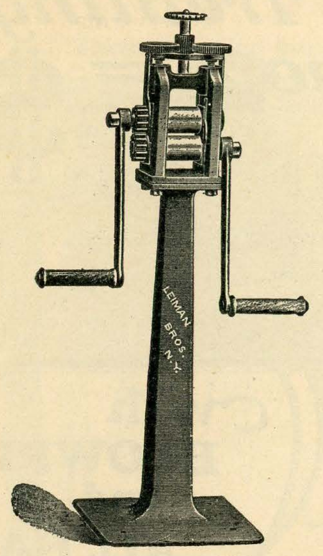


18 in. chair, back 11 in. high reinforced with wire $3.00

18 in. stool. $2.00
24 in. stool 2.50
30 in. stool. 2.75

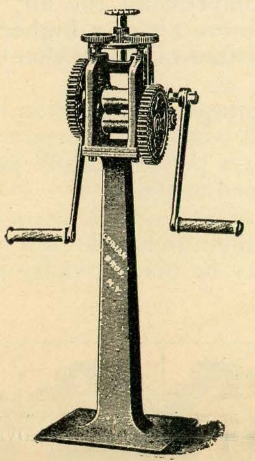
Crating charge extra on these items.

HAND ROLLING MILLS


LEIMAN BROS. N.Y.

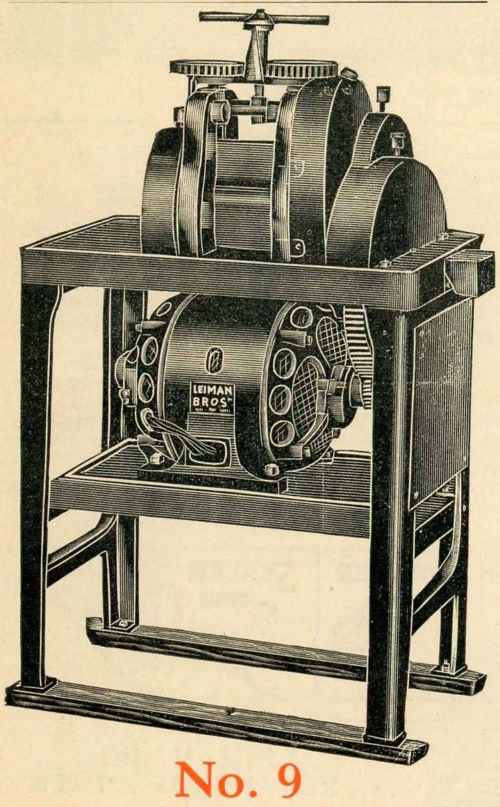
For Flat and Square Wire Rolling with SINGLE gears

	No. 1B	No. 2	No. 2A
Rolls	2x3 in.	2¼x3 in.	1½x2 in.
Grooves for wire	(This size flat only)	.261 to .036	.210 to .030
Price—Flat	$57	$69	$59
Wire		89	79
	(1 handle)	(with 2 handles ea.)	


LEIMAN BROS. N.Y.

For Flat and Square Wire Rolling with DOUBLE gears

	No. 3	No. 4
Rolls	2¼x3 in.	2¾x4 in.
Grooves for wire	.261 to .036	....
Price—Flat	$89	$139
Wire	109	159



No. 9 FLAT ROLLING MILL

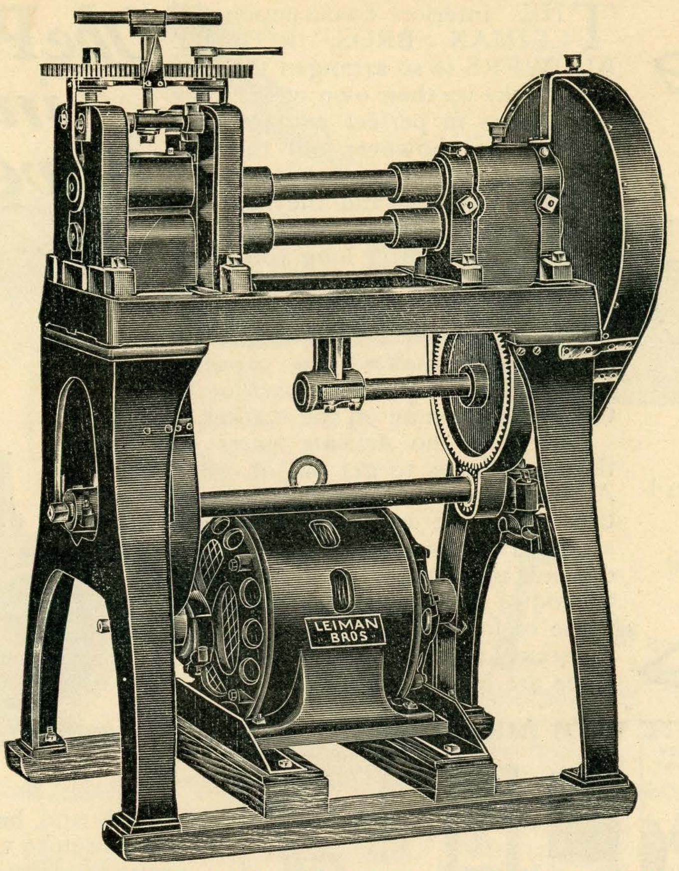
Rolls 2¾x4¼ in. Motor 2 H. P.
Floor space 17½x27½ in.

Price $525

No. 8 SQUARE WIRE ROLLING MILL

Same as pictured above
Rolls same size
13 square wire grooves .265 to .045
Motor 1 H. P.
Floor space 16x20 in.
Weight 525 lbs.

Price $490



No. 13 FLAT ROLLING MILL

Rolls 3x5 in.
Motor 3 H. P.

Price $675

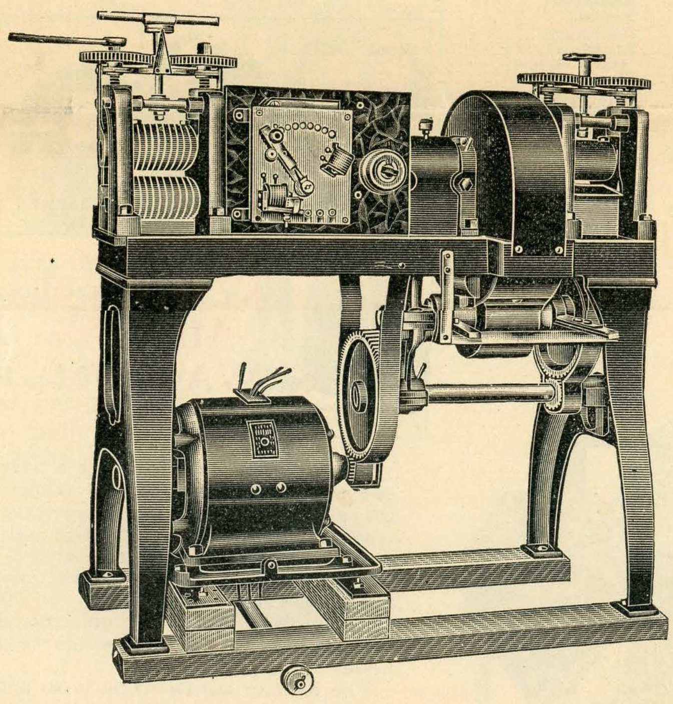
Floor space 2x3 ft.
Weight 866 lbs.

No. 15 FLAT ROLLING MILL

Rolls 4x6 in.
Motor 5 H. P.

Price $1200

Floor space 3x6 ft.
Weight 2,000 lbs.



No. 7 FLAT AND WIRE ROLLING MILL

Rolls 3x5 in. Motor 3 H. P. Floor space 2x4 ft.
19 Square Wire Grooves .307 to .040

Price $990

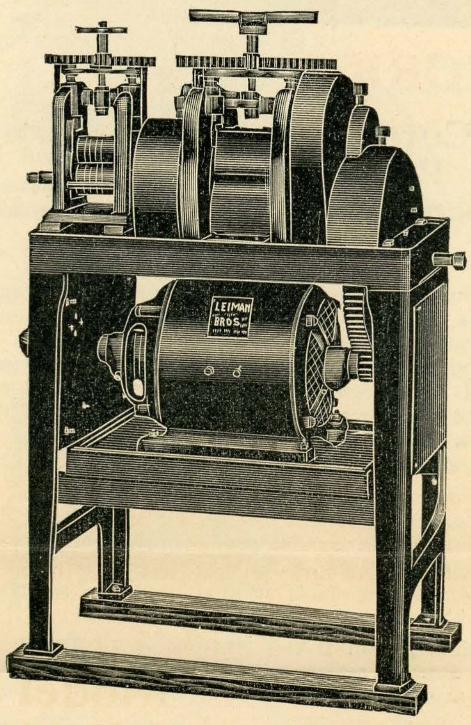
No. 14 FLAT AND WIRE ROLLING MILL

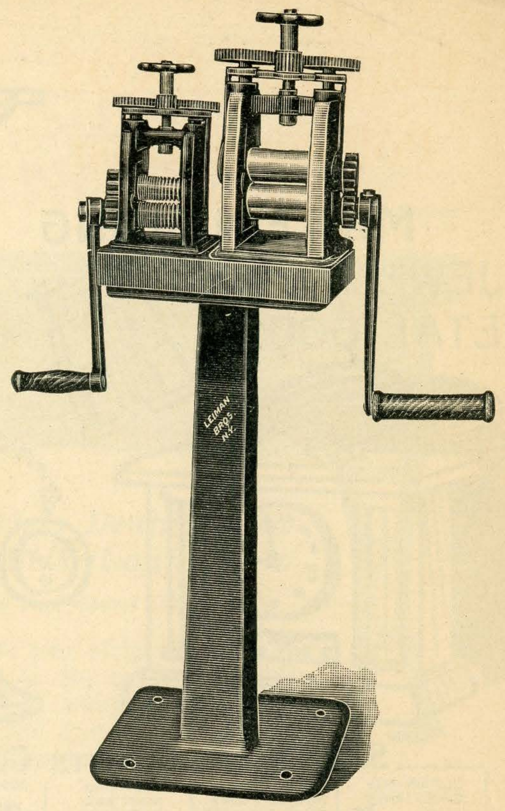
Flat rolls 2¾x4¼ in.
Wire rolls 2¼x3 in.

10 square wire grooves, .261 to .036

Motor 2 H. P.

Price $625

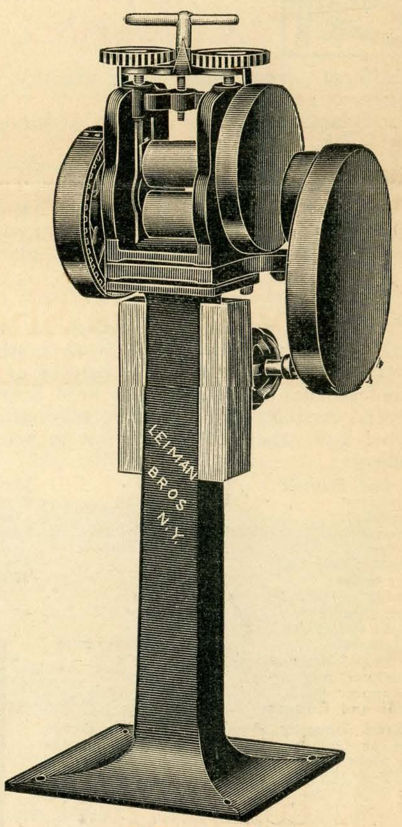

LEIMAN BROS.


LEIMAN BROS. N.Y.

No. 11 FLAT AND WIRE ROLLING MILL

Rolls 2x3 in. flat
Rolls 1½x2 in. wire
7 grooves square .210 to .030

Price $125


LEIMAN BROS N.Y.

No. 5 FLAT MOTOR ROLLING MILL

Rolls 2¾x4¼ in.
Motor 1 H. P.
Weight 500 lbs.

Price $400

With loose and tight pulleys instead of motor.

Weight 310 lbs.

Price $275

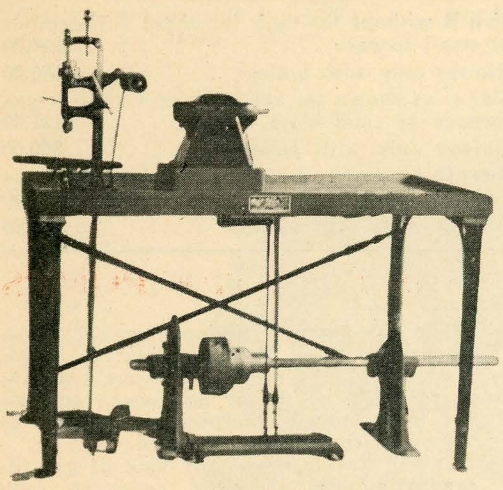
No. 4 SQUARE WIRE ROLLING MILL

Same size rolls as above
Motor ¾ H. P.
13 square wire grooves .265 to .045

Price $395

With loose and tight pulleys instead of motor

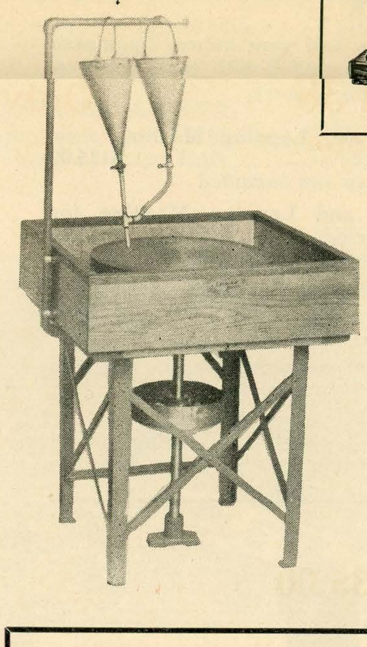
Price $295



GLASS GRINDING AND DRILLING OUTFIT

for bottle necks, tubes, stoppers, cocks, etc.

Complete with driving shaft and belt	$300.00
½ H. P. required to operate	
Sliding vise for drilling	25.00
Spindle extension for holding ½ round laps	3.00
Hollow taper arbor for spindle	7.50
Flange arbor for flat laps, for scoring graduations	7.50
½ round copper lap	7.50
Complete with motor attached, all mounted, and with above accessories	500.00



FLAT GLASS GRINDING MACHINE

for scientific glassware

Size of bench 40x40 in.

Size of cast iron lapping wheel 30 in. diameter.

Equipped with water and emery feed founts.

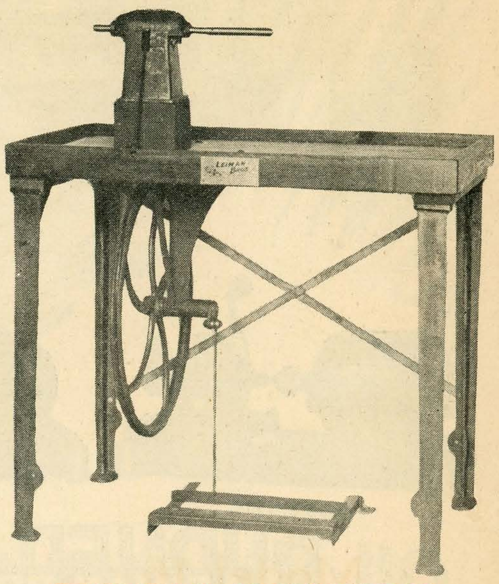
Price $250

Requires 1 H. P. for operating.

GLASSWARE GRINDING and DRILLING MACHINES

for grinding-in bottle necks and stoppers, fitting glass apparatus stop cocks, scoring graduations in glass, etc.

For scientific glassware manufacturers, colleges, schools and laboratories.

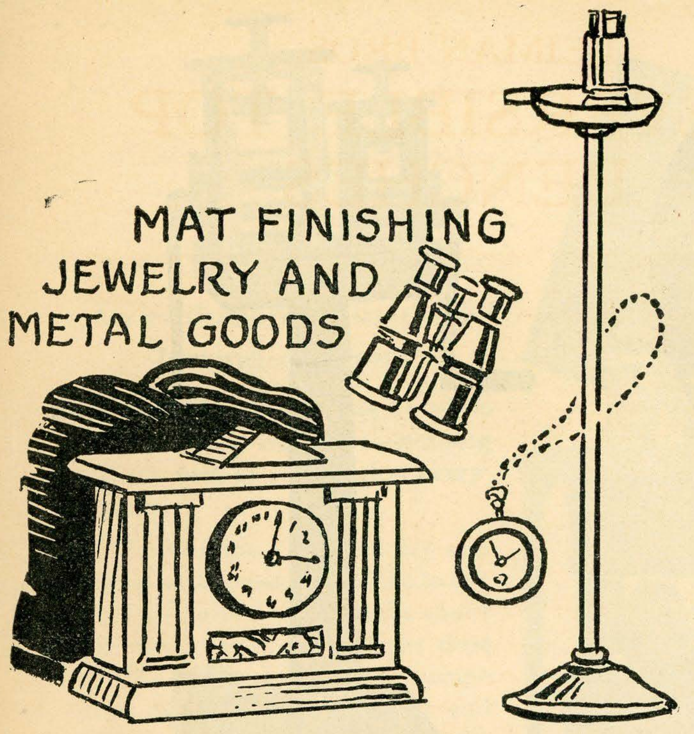


FOOT POWER GLASS GRINDING MACHINE

for bottle necks, stoppers, tubes, etc.

Price $125

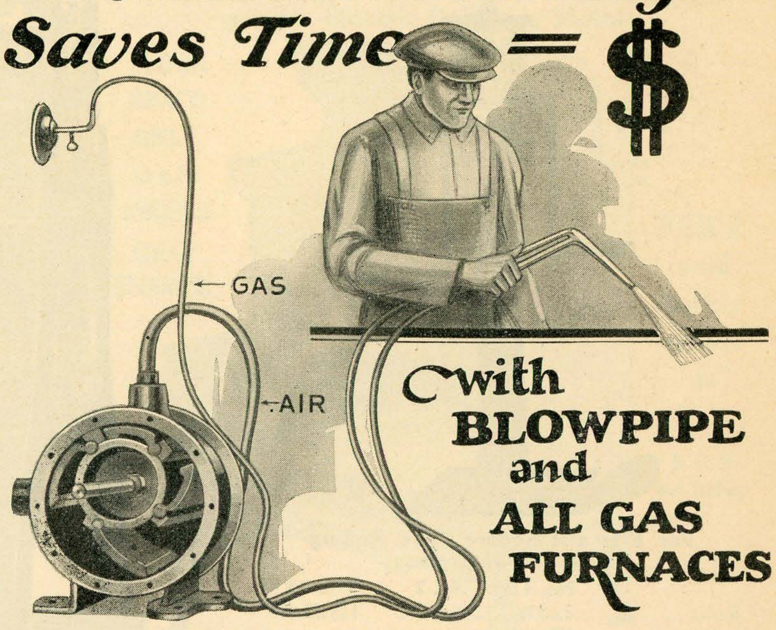
With electric motor attached	**$200.00**
Spindle extension for holding ½ round laps	$3.00
Hollow taper arbor for spindle	7.50
Flange arbor for flat laps, for scoring graduations	7.50
½ round copper lap	7.50



THE interior construction of LEIMAN BROS. ROTARY BLOWERS is so arranged that the wings take up their own wear. They are always in perfect contact with the cylinder however old the machine may be. This results in the highest efficiency, and they are the only blowers that will maintain this efficiency even after long continued use. The curved form of the wing, together with the small size of the piston, makes the air chamber much larger, and makes the capacity greater than any other machine of the same size now on the market.

There are no delicate parts on these machines to get out of order. All parts are massive in construction and built to stand wear and strain. The operation of the machine depends upon natural forces without the aid of springs, tips on the wings made of foreign material to require constant renewal, etc., while all parts are interchangeable.

The PROPER AIR SUPPLY *in Heat Treating Saves Time* = $

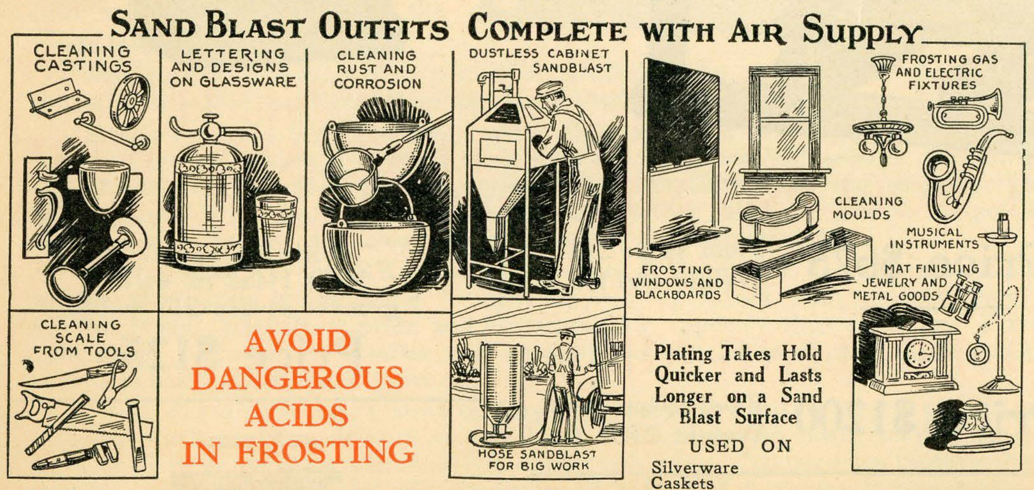


LEIMAN BROS. ROTARY BLOWERS run at slow speeds and, being simply constructed with few working parts, they require very little more power for their operation than is actually required for simply compressing the air. In other words they deliver or displace more air at a higher pressure or vacuum with a smaller expenditure of power than any other machines known.

The advantage gained by the simple construction is that the wings in constant operation, will wear in conformity with the inner cylinder wall and maintain a perfect fit and positive air pressure, even after long continued usage.

These machines, on account of the simplicity of construction and their ability to take up their own wear, are practically noiseless in operation. They may be placed where noise cannot be tolerated.

SAND BLAST OUTFITS COMPLETE WITH AIR SUPPLY


CLEANING CASTINGS
LETTERING AND DESIGNS ON GLASSWARE
CLEANING RUST AND CORROSION
DUSTLESS CABINET SANDBLAST
FROSTING GAS AND ELECTRIC FIXTURES
CLEANING MOULDS
MUSICAL INSTRUMENTS
FROSTING WINDOWS AND BLACKBOARDS
MAT FINISHING JEWELRY AND METAL GOODS
CLEANING SCALE FROM TOOLS
HOSE SANDBLAST FOR BIG WORK

AVOID DANGEROUS ACIDS IN FROSTING

Plating Takes Hold Quicker and Lasts Longer on a Sand Blast Surface

USED ON

Silverware
Caskets
Elevators
Buttons
Machinery
Articles of
Metal Rubber
Glass Wood
Fibre Celluloid, etc.
Aluminum Jars
Hardware
Name Plates
Brushes
Gas Fixtures
Glassware
Cameras
Combs
Electric Bulbs
Medals
Dies and Tools
Jewelry
Skates
Gears
Bag Frames
Firearms
Suspenders
Telephone
Electrical Goods

Uniform even effect—not streaky, spotty like dangerous acids.

Sandblasting may be used as a finish or the base of a finish.

Most inexperienced get best results on first try. Can't spoil work.

Fine, coarse or medium finishes changed at will.

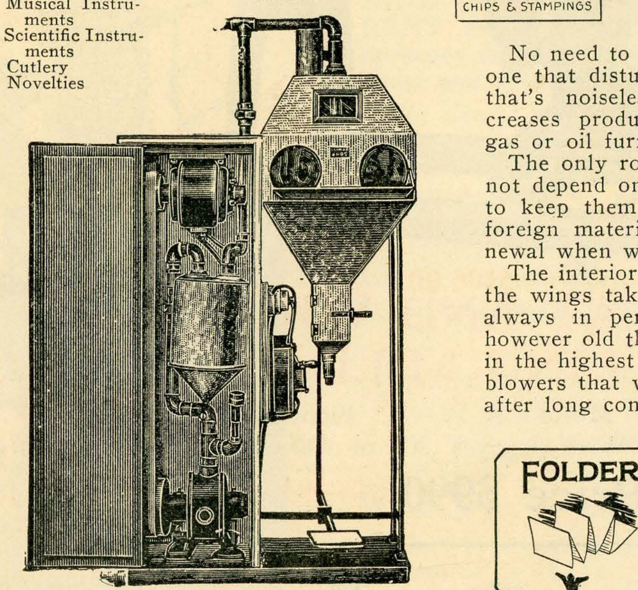
Paint, enamel, plating clings better to a roughened sand blast surface—save current in plating.

What the Sand Blast Does!

Produces a mat or satin finish on metals—frosts glass, cleans moulding sand from castings of brass, aluminum, etc.—prepares the surface of articles to be plated so that the plate takes hold quicker and lasts longer. Articles of all metals, celluloid, wood, glass, rubber and other materials may be sand blasted, including:

Gas and Electric Fixtures
Telephones
Carburetors
Jewelry
Cosmetic box and jar covers
Moulds
Phonographs
Combs and Hair Ornaments
Clocks and Watches
Speedometers
Thermometers
Drills and Cutters
Gears
Electric Light Bulbs
Lettering Bottles
Frosting Window Glass
Statuary
Automobile Hardware
Skates
Building Hardware
Die Castings
Silverware
Electrical Goods
Radio Parts
Medals
Musical Instruments
Scientific Instruments
Cutlery
Novelties

Sand Blasting does not remove Burrs, File or Grinding marks; nor does it take the place of Grinding or Filing. IT DOES NOT POLISH.



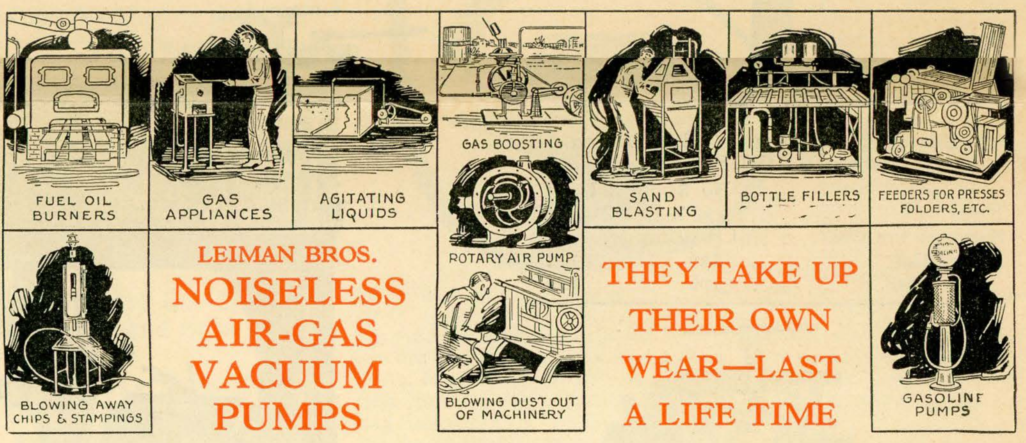
No. 2 COMBINATION SAND BLAST OUTFIT

Sand blast cabinet 12x15 in.

Complete with size A blower, 1 H. P. motor, oil separator, all piped and wired ready to attach to electric system **$300.00**

Sand blast cabinet and oil separator only **$62.00**

Size D blower and 1 H. P. motor only **$172.00**



LEIMAN BROS. NOISELESS AIR-GAS VACUUM PUMPS

THEY TAKE UP THEIR OWN WEAR—LAST A LIFE TIME

No need to continue to use a noisy blower—one that disturbs the whole shop. Here's one that's noiseless, efficient, powerful and increases production—used with all makes of gas or oil furnaces and appliances.

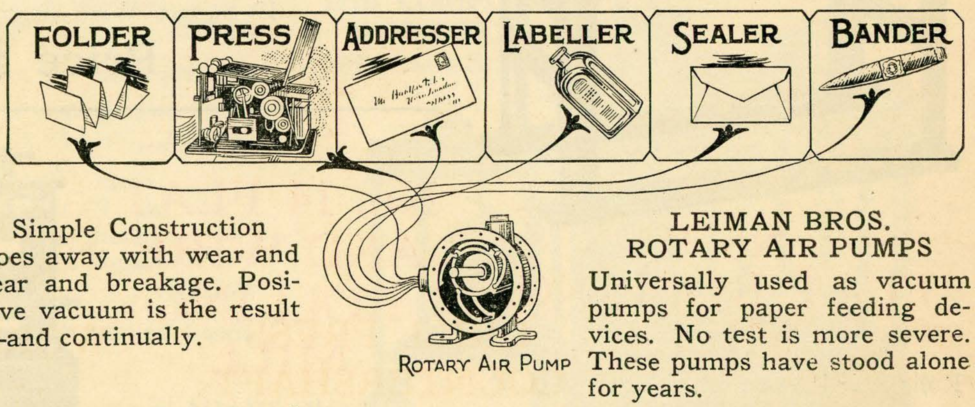
The only rotary air and gas pumps that do not depend on springs, cams, or other devices to keep them tight and efficient. No tips of foreign material on the wings to require renewal when worn.

The interior construction is so arranged that the wings take up their own wear. They are always in perfect contact with the cylinder however old the machine may be. This results in the highest efficiency, and they are the only blowers that will maintain this efficiency even after long continued use.

USED FOR

Fuel Oil Burning
Agitating
Brazing
Soldering
Forging
Hardening
Oil Furnaces
Gas Furnaces
Suction Chucks
Vacuum Cleaning
Wrapping Machines
Laboratory Work
Blow Lamps
Blow Pipes
Gas Pumping
Pressing Irons
Paper Feeding Devices
Printing Presses
Mailing Machines
Melting
Blowing Dirt from machines
Glass Bending
Blowing Chips and Stampings from machines

And Many Kinds of Automatic Machines and Devices

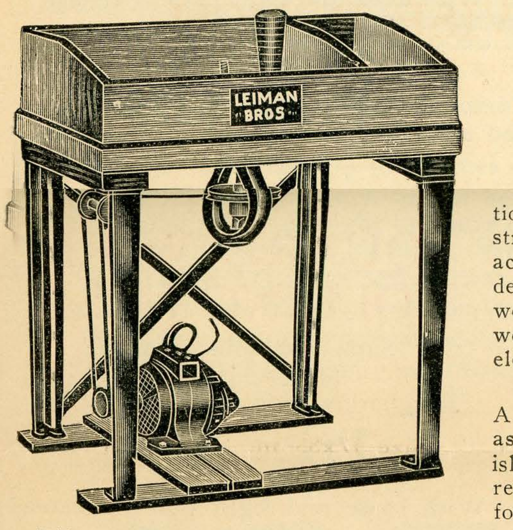


Simple Construction does away with wear and tear and breakage. Positive vacuum is the result—and continually.

LEIMAN BROS. ROTARY AIR PUMPS

Universally used as vacuum pumps for paper feeding devices. No test is more severe. These pumps have stood alone for years.

LAPIDARY WORK



Cutting and Polishing Semi-Precious Stones

Almost any jeweler can succeed in this most fascinating of occupations. Every locality, especially those bordering the oceans, rivers and streams, abound in curious specimens which could easily be turned to account by the local jeweler in the form of souvenirs and keepsakes. Indeed many jewelers devote a considerable part of their time to this work and the cost of the outfit necessary or the skill required to do the work is not great. A very little practice will work wonders in the jeweler already adept in the use of delicate tools.

For cutting and polishing all sorts of quartz, specimens and gem stones. A horizontal spindle on the left is used for slicing and splitting as well as for polishing, while the vertical spindle is used for roughing and finishing as well as for facet forming. The tool rest is used for holding and regulating the facet forming tools. The small compartment is utilized for holding the work.

This outfit may be used for roughing, finishing, polishing and faceting of all quartz and gem stones by means of the upright spindle supplied as shown for foot operation or with motor. Tool rest supplied with each machine. Whether used by foot power or motor drive the machine may be used for any kind of lapidary work.

Flat Grinding and Lapping Machine with motor. Price **$175.00**
Lap not included

Flat Grinding and Lapping Machine for foot power. Price **$125.00**
Lap not included

Double Flat Grinding and Lapping with two motors **$350.00**
Laps not included

Outline of instructions for cutting the more popular semi-precious stones goes with each machine.

Laps, grinding wheels and slitting wheels quoted on according to the work to be done.

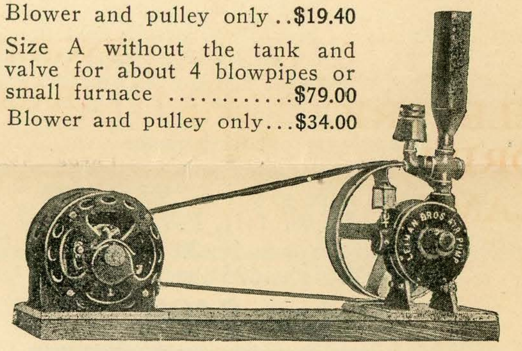
MOTOR DRIVEN BLOWERS

Size 26 without the tank and valve. For about 2 blowpipes or small furnace **$62.00**

Blower and pulley only . . **$19.40**

Size A without the tank and valve for about 4 blowpipes or small furnace **$79.00**

Blower and pulley only . . . **$34.00**



Size B without the tank for about 8 blowpipes or small furnace **$94.00**

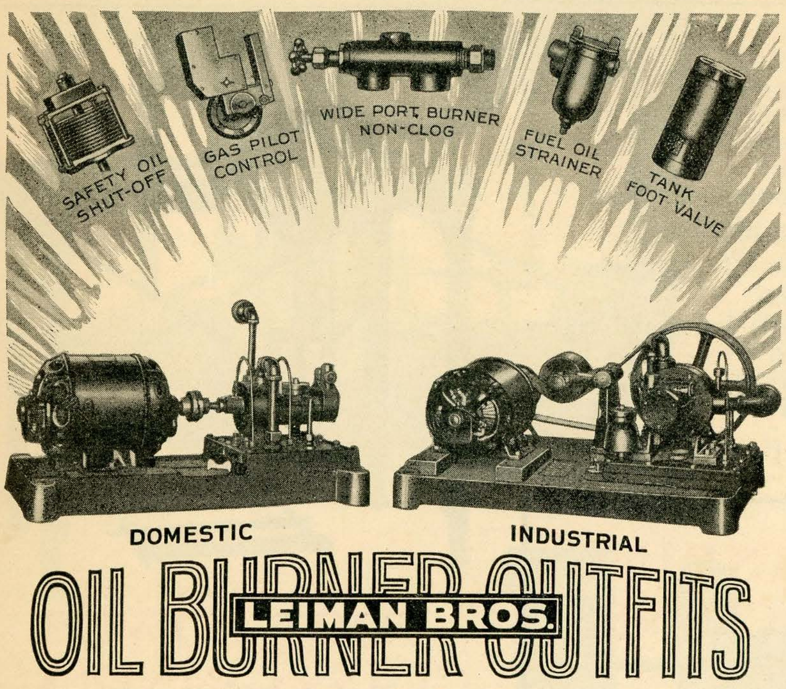
Blower only with pulleys **$46.00**

Size C as shown for about 16 blowpipes or gas furnace or sand blast **$121.00**

Blower only with pulleys **$60.00**

Size D as shown for about 32 blowpipes, gas furnace or sand blast **$172.00**

Blower only with pulleys **$90.00**



OIL BURNER OUTFITS LEIMAN BROS.

with the SOS call for lubrication—

Makes all the Oils (light or heavy) Available
FOR

FUEL OIL HEATING

Saves in Money, Time and Labor

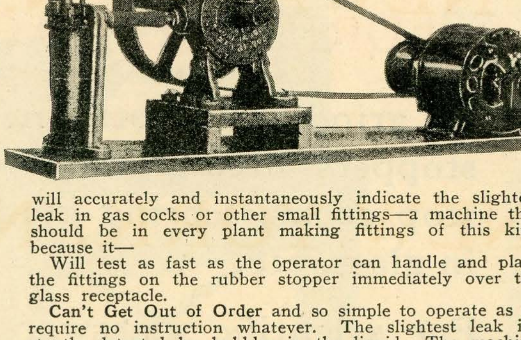
It's Desirable Heat — It's Concentrated Heat

Don't use light oils that will ignite without a mixture of air—heavy oils can't burn without air under pressure but that's what makes them safer than coal—and they contain much more heat—**CHEAPER TOO.**

LEIMAN BROS. OIL BURNING OUTFITS

are made especially for this work.

TESTER FOR LEAKS IN STOP COCKS



will accurately and instantaneously indicate the slightest leak in gas cocks or other small fittings—a machine that should be in every plant making fittings of this kind because it—

Will test as fast as the operator can handle and place the fittings on the rubber stopper immediately over the glass receptacle.

Can't Get Out of Order and so simple to operate as to require no instruction whatever. The slightest leak instantly detected by bubbles in the liquid. The machine is self-lubricating and runs at only 300 R. P. M. Can be supplied with or without motor. Power required 1/3 H. P., or may be operated from any power shaft.

A Marvel of Accuracy and Rapidity of Action—Noiseless—Self-Lubricating

Testing machine with 10-inch pulley. Or supplied with 4-inch loose and tight pulleys for operating from a shaft if desired ....$ 85.00

Testing machine belted to motor 130.00

GAS BOOSTER PUMPS

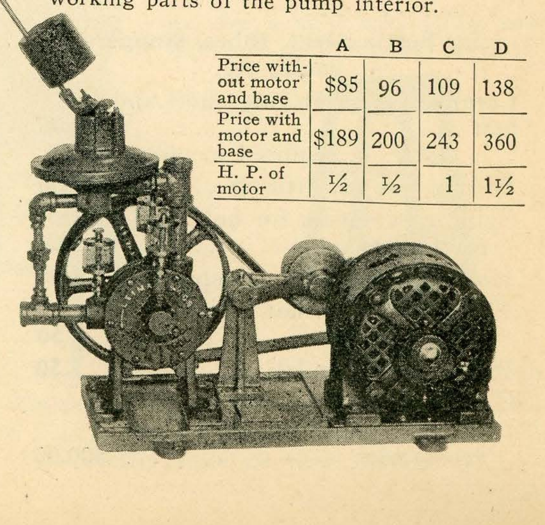
The gas pump is equipped with by-pass, diaphragm valve and gas tight oil cups. The valve keeps the gas pressure constant up to 5 lbs. no matter how much or little gas is consumed. Surplus gas returns to the pump through the by-pass.

It will handle air or any kind of gas (illuminating gas, acetylene, hydrogen, oxygen, etc.) except a gas which will corrode the iron or steel.

The gas pump has solid bearings equipped with a stuffing box and gas tight oil cups.

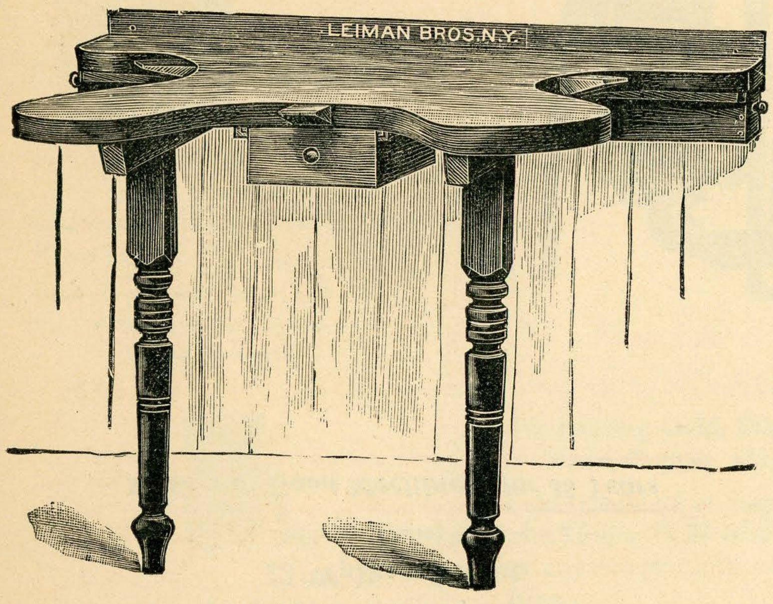
There is also an oil cup to lubricate the working parts of the pump interior.

	A	B	C	D
Price without motor and base	$85	96	109	138
Price with motor and base	$189	200	243	360
H. P. of motor	½	½	1	1½



ENGRAVERS' and SETTERS' BENCHES

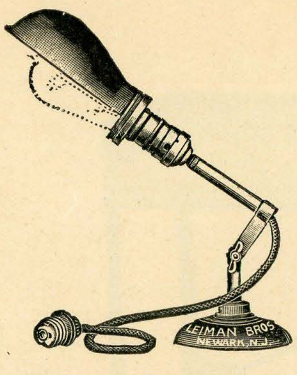
Three, four and five man sizes.


LEIMAN BROS.N.Y.

Hard maple tops, two inches thick, drawers and filing pins at each seat, two legs and two flat wall braces.

	Size three	Size four	Size five
Width at wall	59 in.	54 in.	61 in.
Wall to front centre	34 in.	53 in.	64 in.
High	35 in.	35 in.	35 in.
Price	$31.00	$45.00	$59.00

Apron skins, $2.50 each.
Stools, 18 in. high, $2.00 each.
Chairs, 18 in. high with back 11 in. high, $3.00 each.
Extra filing pins, 20c each.


LEIMAN BROS NEWARK N.J.

ELECTRIC BENCH LAMP

For Evening—Dark Days or Inside Work Where Daylight Is Not Available

Supersedes the Drop Light and the Cumbersome Gooseneck Light.

A turn of the thumbscrew adjusts to any position. The shade protects the eyes.

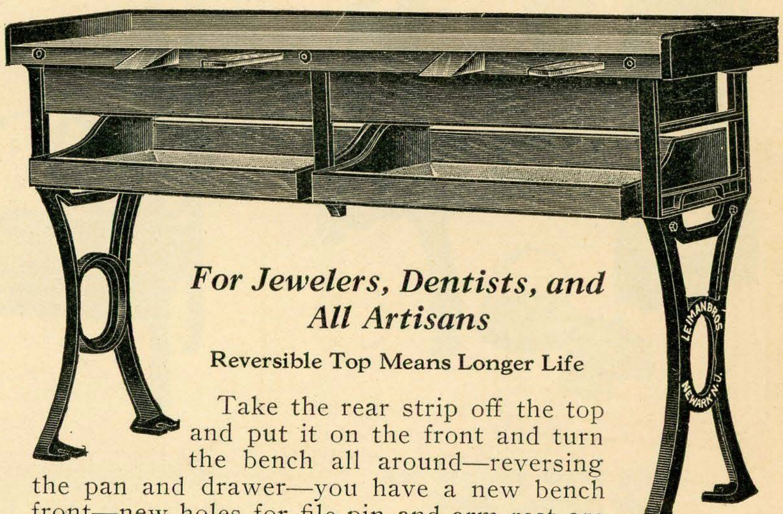
$3.00

Size of base, 4 inches diameter.

LEIMAN BROS.

REVERSIBLE TOP BENCHES

Patented


LEIMAN BROS NEWARK N.J.

For Jewelers, Dentists, and All Artisans

Reversible Top Means Longer Life

Take the rear strip off the top and put it on the front and turn the bench all around—reversing the pan and drawer—you have a new bench front—new holes for file pin and arm rest are all there.

Permanent Slides for Drawer and Pan

Are built-in features of the iron legs. PAN of rust-proof metal trimmed with wood. Rounded corners of the metal bottom and edges embedded in the wood conserve your metal filings.

TOPS of 2 inch thick, hard, close-grained maple in several pieces—also drawn together with long, threaded bolts through the centre of the boards from front to rear of the bench. The bolts may be tightened at will.

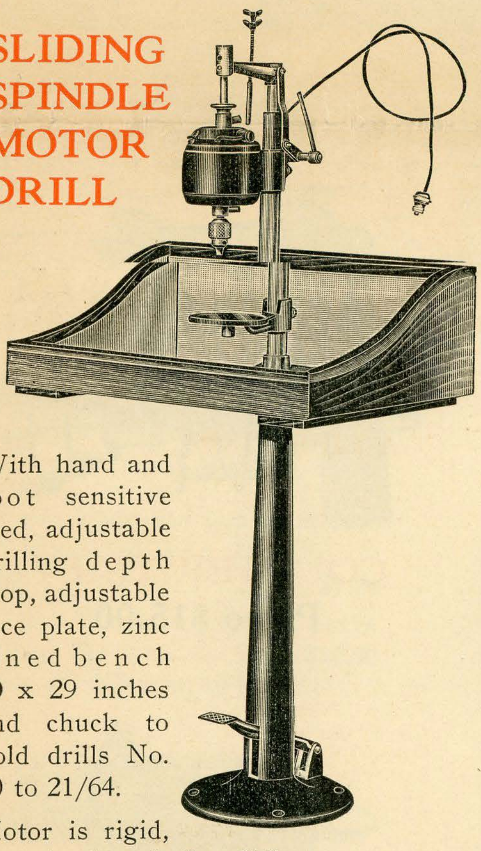
THE BIG DRAWER, full width of the bench, gives much needed space for tools. Lower legs detachable for shipping.

Two Seat Bench	One Seat Bench
$26.00	**$16.00**
17x62 in. — 33 in. high	17x33 in. — 33 in. high

Weight about 80 lbs. per seat.

Extra filing pins ...20c each	¼ in. thick, hard asbestos for tops—
Stools, 18 in. high. $2.00 each	1 seat size $1.60
Chairs, 18 in. high, with back 11 in. high $3.00 each	2 seat size 3.20

SLIDING SPINDLE MOTOR DRILL



With hand and foot sensitive feed, adjustable drilling depth stop, adjustable face plate, zinc lined bench 20 x 29 inches and chuck to hold drills No. 80 to 21/64.

Motor is rigid, the chuck spindle sliding up and down inside hollow armature shaft.

Complete, ready to run	$125.00
Extra drill chuck	4.50
Stool, 30 in. high	2.75
Drill press electric lamp fixture, without bulb	3.00

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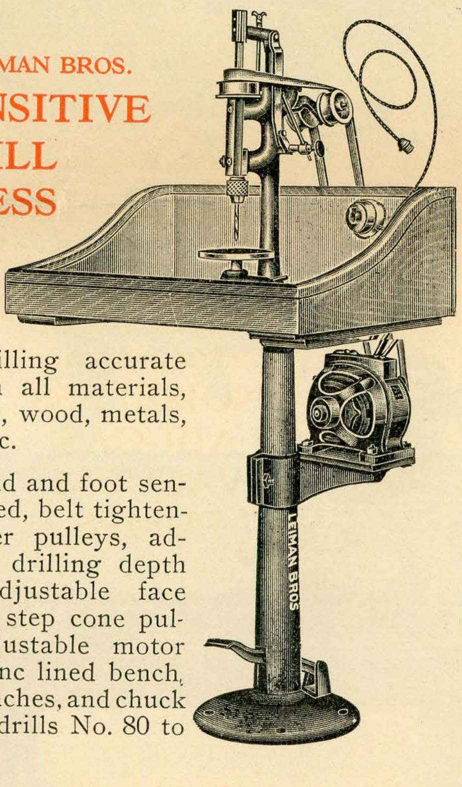
SENSITIVE DRILL PRESS


LEIMAN BROS

For drilling accurate holes in all materials, celluloid, wood, metals, glass, etc.

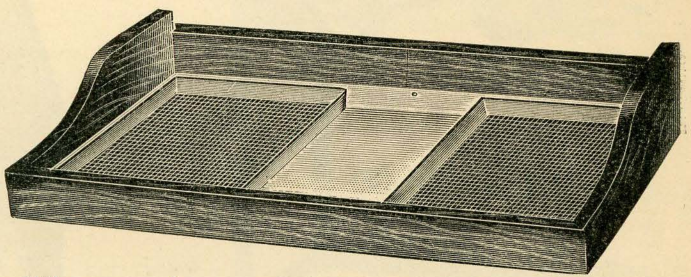
Has hand and foot sensitive feed, belt tightening idler pulleys, adjustable drilling depth stop, adjustable face plate, 2 step cone pulley, adjustable motor table, zinc lined bench, 20x29 inches, and chuck to hold drills No. 80 to 21/64.

Fully equipped with motor, $106.00

Without the motor for operation from a countershaft $85.00	Extra drill chuck $4.50
Countershaft extra.. 10.00	Stool, 30 in. high... 2.75
	Drill press electric lamp fixture without bulb. 3.00

GOLD SAVING TOOL TRAYS

For the work bench pan.
Two for each man.

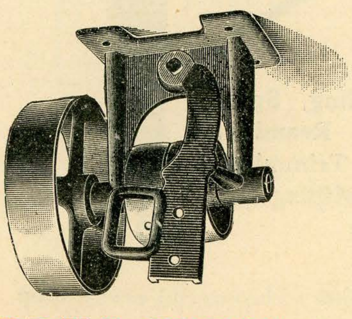


When you clean your pan of filings simply lift one tool tray with tools over onto the other tray, clean that side of the pan—now shift both pans together and clean the other side of the pan—you see the tools don't come out of the pan at all—and when you drop a tool into the tray the filings fall through the wire mesh into the pan underneath.

The tray is made of wire cloth bound in metal—size 9x15 inches. The edges are turned up all around and there is a suitable clearance underneath.

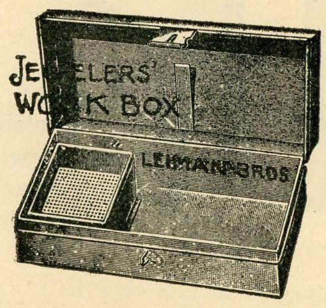
Set of two $2.00

Large bench pan not included in price.



DRILL PRESS COUNTERSHAFT

$10.00


JEWELERS' WORK BOX
LEIMAN BROS

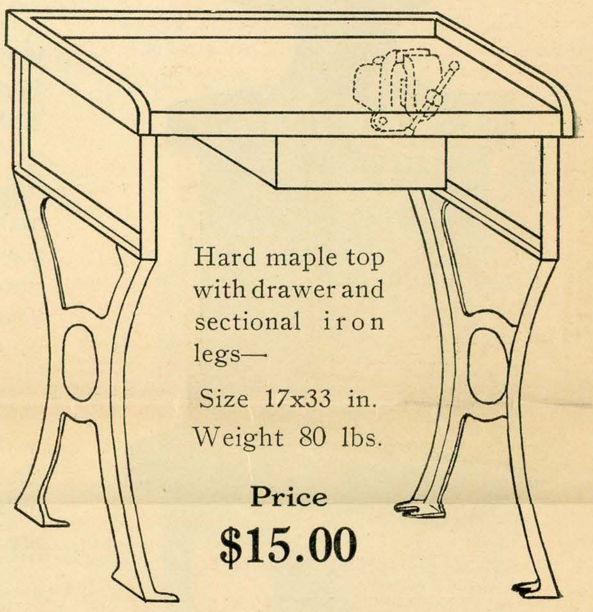
WORK BOXES

Work boxes of bright tin with inner container and sieve.

4½x8½x2½ in. deep.

Price 85c

VISE BENCH

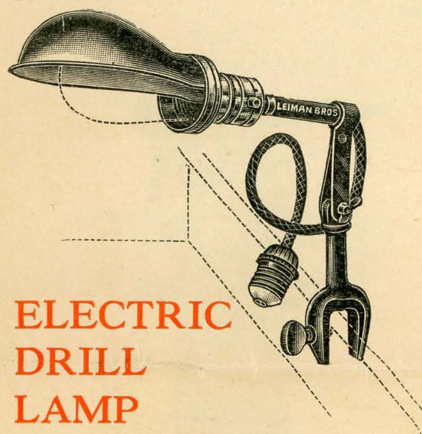


Hard maple top with drawer and sectional iron legs—

Size 17x33 in.

Weight 80 lbs.

Price
$15.00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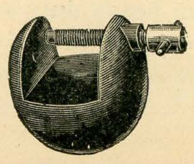
ELECTRIC DRILL LAMP

Clamps on bench and places light directly on work. Rigidly adjustable.

Price $3.00

ENGRAVING BALLS

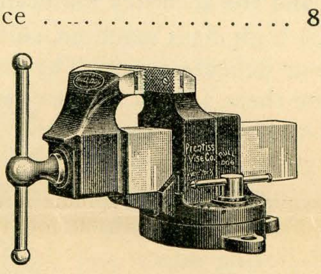


Large—5¼ in. diameter, 3 in. jaw.
Weight 14 lbs.
Price $3.00

Small—4⅝ in. diameter, 2⅜ in. jaw.
Weight 10 lbs.
Price $2.50

ENGRAVING BALL PADS

Leather stuffed $3.00
for holding Engraving balls


Prentiss Vise Co.
BULL DOG

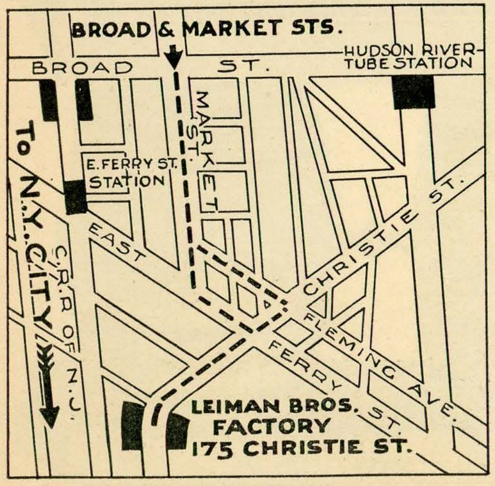
VISES

3 in. wide jaws.

Stationary body	$11.00
Swivel body	12.00

LEIMAN BROS.
COMPLETE SHOP OUTFITTERS
LEIMAN BROS. AIR PUMP

8 MINUTES FROM BROAD & MARKET STS.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Makers of Good Machinery for 35 Years

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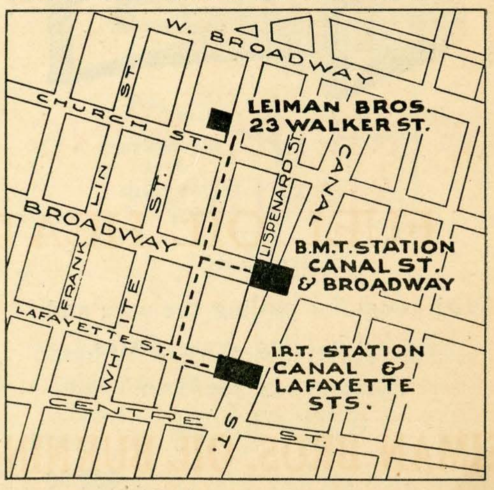
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